Ad A 138907

# UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Date Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM	
1. REPORT NUMBER	2. GOVT ACCESSION NO.	3.	RECIPIENT'S CATALOG NUMBER
NATICK/TR-84/001	AD - A138907		
4. TITLE (and Subtitio)		5.	TYPE OF REPORT & PERIOD COVERED
BIBLIOGRAPHY OF TECHNICAL PUBLICATIONS AND		1	
PAPERS October 1982 - September 1983		L	Annual FY 83
·		6.	PERFORMING ORG. REPORT NUMBER
			NATICK/TR-84/001
7. AUTHOR(s)		8.	CONTRACT OR GRANT NUMBER(*)
3. PERFORMING ORGANIZATION NAME AND ADDRESS  US Army Natick Research & Development Center  ATTN: STRNC-DT  Natick, MA 01760		10.	PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS		12.	REPORT DATE
US Army Natick Research & Development Center			November 1983
ATTN: STRNC-DT		13.	NUMBER OF PAGES
Natick, MA 01760			25
14. MONITORING AGENCY NAME & ADDRESS(II dillerent from Controlling Office)		15.	SECURITY CLASS. (of this report)
		•	Unclassified  DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report)			SOMEDULE

Approved for public release; distribution unlimited.

17. DISTRIBUTION STATEMENT (of the obstract entered in Block 20, if different from Report)



Technical publications and papers of the period October 1981 to September 1982 that are not listed in the Bibliography of Technical Publications and Papers of November 1982 are included in this listing.

19. KEY WORDS (Centinue on reverse side if necessary and identify by block number)

Research

Army Natick Research & Development Center

Reports

Bibliographies

Publications

Documents

Development

Patents

and identity by block number)

This report contains a bibliographic listing of technical publications and papers presented by personnel of the US Army Natick Research & Development Center and its contractors for the period October 1982 through September 1983.

DD 1 JAN 79 1473

EDITION OF 1 MOV 65 IS DESOLETE

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Date Entered)

20030108032

# REPRODUCTION QUALITY NOTICE

This document is the best quality available. The copy furnished to DTIC contained pages that may have the following quality problems:

- · Pages smaller or larger than normal.
- Pages with background color or light colored printing.
- · Pages with small type or poor printing; and or
- Pages with continuous tone material or color photographs.

Due to various output media available these conditions may or may not cause poor legibility in the microfiche or hardcopy output you receive.

If this block is checked, the copy furnished to DTIC contained pages with color printing, that when reproduced in Black and White, may change detail of the original copy.

This document contains blank pages that were not filmed

#### PREFACE

This bibliography is a list of technical publications and papers by personnel of the US Army Natick Research and Development Center and its contractors for the period October 1982 through September 1983. The arrangement is by organizational elements.

Reprints of journal articles, in some cases, are available from the individual authors. Copies of technical reports may be obtained from (1) Defense Technical Information Center, Cameron Station, Alexandria, Virginia 22314, or (2) the National Technical Information Service, Springfield, Virginia 22161. The "AD" number should be cited when ordering copies of reports.

Technical Library Division
Directorate of Services and Facilities



ccess1	on For	
TIS .	Kari	D
TIC TA	В	Ī
บละหวอน	<b>B</b> ced	
ustiff	cation_	
ietrib	ution/	
Availa	bility	Cedes
AV	ail and	/or
st ,	Special	
a II	1	
<del>                                     </del>	1	
( '	ł	

# CONTENTS

	Page
Office of the Commander	5
Deputy Commander	6
Office of the Technical Director	. 7
Directorate of Plans and Evaluation	8
Directorate of Systems Analysis and Concept Development	9
Technical Library	10
Aero-Mechanical Engineering Laboratory	11
Food Engineering Laboratory	12
Individual Protection Laboratory	17
Science and Advanced Technology Laboratory	19
Index to Authors	25

#### US ARMY NATICK RESEARCH AND DEVELOPMENT CENTER

# OFFICE OF THE COMMANDER

# Journal Articles

- 1. HAYES, J. S. The future: What we must do. Act. Rep. R&D Assoc., 35(1): 1-3 (1983).
- 2. Drawing to an inside straight—and winning. Act. Rep. R&D Assoc., 35(2): 1-3 (1983).

- 3. HAYES, J. S. Veterans Day address, Town of Natick, MA, November 11 1982.
- 4. Preparedness: NLABS contribution to the total force.
  Presentation to Mass. Bay Chapter, AUSA, Hanscom AFB, MA, January 21 1983.
- 5. \_\_\_\_. Memorial Day address, Town of Natick, MA May 30 1983.

#### DEPUTY COMMANDER

- 6. RONDIAK, R. We make things better for the soldier. DARCOM Resource Management Executive Workshop (RMEW), Williamsburg, VA, December 10 1982.
- 7. \_\_\_\_\_. Command briefing. Wellesley Lions Club, Natick, MA, February 2 1983.
- 8. \_\_\_\_\_. Memorial Day services. Town of Millis, MA, September 30

# OFFICE OF TECHNICAL DIRECTOR

# Technical Papers

9. ROSS, E. W. Statistical analysis of Army-ration storage tests. Lecture, Dept. of Applied Mathematics and Computation, University of Virginia, Charlottesville, VA, November 3 1982.

# DIRECTGRATE OF PLANS AND EVALUATION

- 10. WHITE, W. NLABS overview. Society of American Military Engineers, Waltham, MA, March 8 1983.
- 11. NLABS overview. New England Public Purchazing Official's Association, Natick, MA, June 15 1983.

# DIRECTORATE OF SYSTEMS ANALYSIS AND CONCEPT DEVELOPMENT

# Technical Reports

- FLYNN, J. C., M. L. HERZ, L. J. LABANCA, G. D. SIDES, and R. B. WATKINS. Assessment of field laundry and bath methods with decontamination capabilities. NATICK/TR-83/031, October 1982 (AD B075 848L).
- 13. GRAVES, R. D. and S. J. IMHOFF. SHLTIM—a model for the time history of toxic agent concentrations inside physical shelters. AMAF Industries, Inc., Contract No. DAAK60-80-C-0067. NATICK/TR-83/032, June 1982 (AD B074 587).
- 14. REILLY, R. A systems analysis of the logistics of supplying lettuce to overseas military, NATICK/TR-83/039, June 1983.

- BRANDLER, P. NLABS support to Air Force food service. Tactical Air Command Engineering & Services Conference, Langley AFB, VA, February 15 1983.
- 16. SUNDELL, J. A. Food service in a nuclear, biological, chemical (NBC) environment. Twenty-Fifth Navy Occupational and Environmental Health Workshop, Virginia Beach, VA, March 17 1983.

# TECHNICAL LIBRARY

# Technical Reports

17. Bibliography of technical publications and papers: October 1981-September 1982. US Army Natick Research and Development Laboratories. NATICK/TR-83/001, November 1982 (AD A123 884).

#### AERO-MECHANICAL ENGINEERING LABORATORY

# Technical Reports

- 18. FARINACCI, A. L., and W. L. BLACK. Exploratory development of a high level airdrop system for platform mounted cargos. Contract No. DAAK60-77-C-0073. NATICK/TR-83/003, July 1979 (AD A130 728).
- 19. NYKVIST, W. E. Heat-driven fan for tent habitability improvement. NATICK/TR-83/015, November 1982 (AD A125 668).

#### Other Publications

20. JOHNSON, A. R. Large deformations and stability of axisymmetric Mooney membranes—finite element solutions. <u>In Army Research Office Report 83-1, Transactions of the 28th Conference of Army Mathematicians, June 28-30, 1982, Washington, DC: Army Research Office, 1983 (AD P001 034).</u>

# Technical Reports

- 21. BAUSH, E. R., J. G. HALKIOTIS, and W. M. SWANTAK. Survey of foods to improve logistic support and extend mission endurance of submarines. NATICK/TR-83/014, December 1981.
- 22. BUFFONE, R. J. Marine Corps shelterized expeditionary food service system--Marine Corps ISO galley and sanitizing unit. NATICK/TR-83/023, July 1982.
- 23. DAVIS, B. A., and M. V. KLICKA. Effect of holding time and temperatures on the quality of precooked frozen meals. NATICK/TR-82/045, October 1982 (AD A129 827).
- HALKIOTIS, J. G., and C. P. SHAW. A survey of quality assurance practices in nonmilitary hospitals. NATICK/TR-83/024, April 1983.
- 25. HALKIOTIS, J. G., E. R. BAUSH, and G. W. SHULTS. Full food service contract for Army dining facilities. NATICK/TR-83/013, January 1982.
- 26. KUBIK, C. A., I. C. FOSSUM, B. M. ATWOOD, and M. V. KLICKA. Sensory and nutritional evaluation of meat loaves with and without granular soy concentrate. NATICK/TR-83/028, May 1982 (AD A131 803).
- 27. MEYER, A. I., and M. V. KLICKA. Operational rations—current and future—of the Department of Defense. NATICK/TR-82/031, September 1982. (AD A127 795).
- 28. SHAW, C. P., and M. BETANCOURT. Patient tray food service equipment: an evaluation of the Aladdin rethermalization system. NATICK/TR-83/021, March 1983 (AD Al31 421).
- 29. SHAW, C. P., and J. E. ROSADO. Entree production guides for cook/freeze systems. NATICK/TR-83/017, March 1983 (AD A129 531).
- 30. SHULTS, G. W., and E. J. SUNDERLAND, Microwave freeze dehydration-A review. NATICK/TR-82/008, January 1982.
- 31. SMITH, L. W., JR., and W. E. BURKHOLDER. Biomonitoring for stored-product insects of military importance and a review of the literature and military application. NATICK/TR-83-009, January 1983 (AD A128 419).

# <u>Technical Reports</u> (cont'd)

- 32. SMITH, L. W., JR., W. E. BURKHOLDER, and J. R. PHILLIPS. Detection and control of insects in stored food, Part I The effect of pheromone-baited traps and their placement on the number of <a href="Trogoderma">Trogoderma</a> species captured. NATICK/TR-83/008, January 1983 (AD A127 696).
- 33. SMITH, L. W., JR., J. SIMKIN, and H. A. BOHM. Development of an effective, safe, insect-resistant treatment for food packaging materials. Penwalt Corporation, Contract No. DAAK60-78-C-0010. NATICK/TR-83/019, March 1983 (AD A125 945).
- 34. WYANT, K. W., and P. L. CARON. The emergency/assault food packet with the Arctic supplement—an evaluation of an Arctic ration and assessment of water discipline. RATICK/TR-83/002, December 1981 (AD A128 380).

#### Journal Articles

- 35. CARON, P. L., and K. W. WYANT. Water discipline and an Arctic ration prototype. Mil. Med., 148 (5): 435-439 (1983),
- 36. GORFIEN, H. Controlled/modified atmosphere storage for shelf-life extension. Act. Rep. R&D Assoc., 35(1): 108-112 (1983).
- 37. MAIZE, R. S., II. The combat field feeding system tray pack testing results including the Fort Hood October 1982 Test. Act. Rep. R&D Assoc., 35(2): 46-5C (1983).

- 38. BLODGETT, C. R., G. W. SHULTS, and J. E. SUNDERLAND. Engineering design for automated compression system for dried foods.

  Proceedings 3rd International Drying Symposium, Great Britain, September 1982.
- 39. Automated system for producing compressed dried foods.

  Research & Development Associates for Military Food and Packaging
  Systems, Inc., Natick, MA, September 30 1983.
- 40. DECAREAU, R. Microwaves in food processing. Meeting of the Washington Section, Institute of Food Technologists, Washington, DC, January 6 1983.

# Technical Papers (cont'd)

- 41. Product development for the microwave oven market. Meeting of the Lake Erie Section, Institute of Food Technologists, Cleveland, OH, February 7 1983.
- 42. Product development for the microwave oven market. Meeting of the Blue Grass Section, Institute of Food Technologists, Louisville, KY, February 8 1983,
- 43. Product development for the microwave oven market. Meeting of the Indiana Section, Institute of Food Technologists, Indianapolis, IN, February 10 1983.
- 44. Product development for the microwave oven market. Meeting of the Central New York Section, Institute of Food Technologists, Syracuse, NY, February 14 1983.
- 45. Product development for the microwave oven market. Meeting of the St. Louis Section, Institute of Food Technologists, St. Louis, MO, February 15 1983.
- 46. Product development for the microwave oven market. Meeting of the Magnolia Section, Institute of Food Technologists, Jackson, MI, February 16 1983.
- 47. Microwaves in food processing. Meeting of the Gulf Coast Section, Institute of Food Technologists, New Orleans, LA, November 5 1982.
- 48. DUNNE, C. P. Biosynthesis of plant and animal food. American Chemical Society Annual Meeting, Washington, DC, August 1983.
- 49. \_\_\_\_\_\_. Development of optimal supplements for field rations—beyond basic nutritional requirements. Research and Development Associates For Military Food And Packaging Systems, Inc., Natick, MA, September 30 1983.
- 50. EAMES, C. Food research and development. Henry O. Peabody School of Culinary Arts, Norwood, MA, November 15 1982.
- 51. Space foods. Chapter of Retired Persons, Norwood, MA, January 20
- 52. GORFIEN, H. Controlled/modified atmosphere storage for shelf-life extension. Research and Development Associates for Military Food and Packaging Systems, Inc., Natick, MA, October 1982.

# Technical Papers (cont'd)

- 53. HARRIS, N. Modern food methods. Belmont Mens' Club, Belmont, MA, May 1983.
- 54. \_\_\_\_. Modern food methods. Retired Mens' Club, Newton, MA, December 1932.
- 55. KIM, H., I. TAUB, and V. LOVERIDGE. Crosslinking of myosin in freezedried foods. 1983 Annual Institute of Food Technologists Meeting, New Orleans, LA, June 1983.
- 56. KLJCKA, M. Space shuttle nutrition. The Metro-DC Affiliate of the Society for Nutrition Education, Greenbelt, MD, April 27-28 1983.
- 57. Food processing. American School Food Service Association, Vail, CO, January 15-19 1983.
- 58. LAMPI, R. A., and K. H. HU. Field feeding energy requirements and innovations, Research and Development Associates for Military Food and Packaging Systems, Inc., Natick, MA, September 1983.
- 59. LOVERIDGE, V. Restructured meat processes and products. International Symposium on Meat Science and Technology, University of Nebraska, Lincoln, NE, November 1-4 1982.
- 60. MAIZE, R. S., III. The combat field feeding system—tray pack testing results to include the Fort Hood October 1982 test. Research and Development Associates for Military Food and Packaging Systems, Inc., Norfolk, VA, April 14-15 1983.
- 61. MANSUR, R. Military food packaging systems: the retort pouch and the tray pack. International Symposium on Meat Science and Technology, Lincoln, NE, November 1-4 1982.
- 62. SALANT, A. S. Military interface with international institutes in the recognition and solution of meat related problems and challenges encountered in feeding the individual soldier. International Symposium on Meat Science and Technology, Lincoln, NE, November 1-4 1982.
- 63. SECRIST, J. L. Long-term research needs and goals. International Symposium on Meat Science and Technology, University of Nebraska, Lincoln, NE, November 1-4 1982.
- 64. SHAW, C. P. New ration and processes for military feeding.
  International Symposium on Meat Science and Technology, University of Nebraska, Lincoln, NE, November 1-4 1982.
- 65. A survey of hospital food service quality assurance practices.
  66th Annual Meeting of the American Dietetic Association, Anaheim, CA,
  June 13 1983.

### Technical Papers (cont'd)

- 66. New freeze dehydrated powders for patients on liquid diets.
  Clinical Nutrition Fost Graduate Short Course, Washington, DC, April 2d,
  1983.
- 67. Quality assurance in hospital food service. Walter Reed Army Medical Center, Washington, DC, September 28 1983.
- 68. SHULTS, G. W. Restructured meat products/new products for military. International Symposicum on Meat Science and Technology, University of Nebraska, Lincoln, NE, November 1-4 1982.
- 69. SMITH, J. J. Functionality of ingredients in restructured meats. International Symposium on Meat Science and Technology, University of Nebraska, Lincoln, NE, November 1-4 1982.
- 70. TAUB, I. Free radical reactions in food. American Chemical Society Annual Meeting, Washington, DC, August 1983.

# Other Publications

- 71. BLODGETT, C. R., and A. ZELMAN, Rehydration of food products in a membrane pouch. Rensselaer Polytechnic Institute, Contract No. DAAK60-82-C-0021, 1983.
- SECRIST, J. L. Long term research needs and goals. International Symposium on Meat Science and Technology Proceedings. Chicago, IL: Award Publishing Corp., 1983, 223-227.
- 73. SHULTS, G. W. New restructured meat products for the military. International Symposium on Meat Science and Technology Proceedings. Chicago, IL: Award Publishing Corp., 1983, 279-284.
- 74. SMITH, J. J. Functionality of ingredients in restructured meats. International Symposium on Meat Science and Technology Proceedings. Chicago, IL: Award Publishing Corp., 1983, 225-264.

#### INDIVIDUAL PROTECTION LABORATORY

## Technical Reports

- 75. BENSEL, C. K., and R. N. KISH. Lower extremity disorders among men and women in Army basic training and effects of two types of boots. NATICK/TR-83/O26, January 1983 (AD A133 002).
- 76. GOLD, A. A., J. R. GOLDGRABEN, C. T. GOLDGMITH, and N. MONASTERO.

  Modifications to improve data acquistion and analysis for camouflage design. Decilog Inc., Contract No. DAAK60-79-C-0072. NATICK/TR-83/011, January 1983 (AD A129 650).
- 77. HEPFINGER, L. B. Correlation studies on a prototype color-measurement system. NATICK/TR-83/027, May 1983 (AD A131 370).
- 78. HINRICHS, R. N., S. R. LALLEMENT, and R. C. NELSON. An investigation of the inertial properties of backpacks loaded in various configurations. Biomechanics Lab, Penn State University, Contract No. DAAK60-78-C-0033. NATICK/TR-82/023, December 1982 (AD A122 730).
- 79. MARTIN, F. E., R. C. NELSON, and SHIN IN-SIK. Effects of gender, frame length and participation time on load carrying behavior. Biomechanics Lab, Penn State University, Contract No. DAAK60-81-C-0018. NATICK/TR-82/041, August 1982 (AD A122 831).
- 80. RAMSLEY, A. O., T. R. COMMERTORD, and L. B. HEPFINGER. Objective color measuring system. NATICK/TR-83/005, September 1982 (AD A124 505).
- 81. WHITE, R. M. Comparative anthropometry of the foot. NATICK/TR-83/010, December 1982 (AD A126 189).

#### Journal Articles

- 82. KANE, F. J. Permethrin impregnation of military fabrics: An evaluation of application rates and industrial methods by bioassay and gas chromatographic analyses. Soap, Cosmet., Chem. Spec., 36-39 August 1983.
- 83. REMY, D. E. A versatile synthesis of tetrabenzporphyrins. Tetrahedron Letters, 24(14): 1451-1454 (1983).

#### Technical Papers

84. COMMERFORD, T. R. Color control in military procurement. Symposium on Practical Applications of Color Control, Greensboro, NC, March 8-9 1983.

#### INDIVIDUAL PROTECTION LABORATORY

# Technical Papers (cont'd)

- 85. \_\_\_\_\_. Color difference determination. Workshop on Color Measurement Principles in the Textile Industry, AATCC Technology Center, October 27-28 1982.
- 86. HANSEN, J. V. E., K. A. REINHART, and G. THOMAS. An overview of the organic materials effort being conducted by the Individual Protection Laboratory, US Army Natick R&D Laboratories. TTCP-P-TP3 Workshop, Ottawa, Canada, June 2 1983.
- 87. REINHART, K. A. Remaining vital through research. 1983 AATCC New England Regional Textile Conference, Provincetown, MA, May 21 1985.
- 88. REINHART, K. A., and J. V. E. Hansen. High performance textiles in military applications. 1983 TRI Research and Technology Conference, Charlotte, NC, May 3 1983.
- 89. High performance textiles in military applications dyeing and finishing. ATMI-Finishers Committee Meeting, New York, NY, May 5 1983.
- 90. WILUSZ, E., and R. C. LAIBLE. Permeabililty of elastomers. ARO Meeting of Protective Materials, Newport, RI, October 4-7 1983.
- 91. . Sorption and diffusion of organic liquids in butyl and epichlorohydrin rubber. Chemical Systems Laboratory Conference on Chemical Defense Research, Edgewood, MD, November 16-20 1982.

#### Technical Reports

- 92. BRANDON, D. L., and J. W. CORSE. Immunochemical methods for quantitation of vitamin B6. NATICE/TR-83/042, September 30 1981 (AD A133 108).
- 93. SILVERMAN, G. J. A microbiological quality assurance program for the central production facility at F. E. Warren AFB. NATICK/TR-82/044, 1982.
- 94. STAPLER, J. T., and F. H. BISSETT. Temperature stability of chemical protective systems, Part 1. Studies of a polyester-based polyurethane laminate. NATICK/TR-83/022, September 1982 (AD B074 376L).

#### Journal Articles

- 95. ALLEN, A. L., and R. L. ANDREOTTI. Continuous culture of Aspergillus phoenicis QM329 for the production of cellobiase. Biotechnol. & Bioeng. 24(12): 2747-2751 (1982).
- 96. CARDELLO, A. V., R. A. SEGARS, J. L. SECRIST, J. J. SMITH, S. H. COHEN, and R. ROSENKRANS. Sensory and instrumental texture properties of flaked and formed beef. Food Microstruct. (ia press).
- 97. CARDELLO, A. V., F. M. SAFYER, O. HALLER, and L. DIGMAN. Sensory evaluation of the texture and appearance of 17 species of North Atlantic fish. J. Food Sci., 47(6): 1818-1823 (1982).
- 98. CARDELLO, A. V., F. M. SAWYER, P. PRELL, O. MALLER, and J. C. KAPSALIS. Sensory methodology for the classification of fish according to edibility characteristics. Lebensm. Wiss. & Technol., 16(4): 190-194 (1983).
- 99. CARDELLO, A. V., J. L. SECRIST, and J. J. SMITH. Exfects of soy particle size and color on the texture and appearance of soy-extended beef patties. J. Food Qual., 6: 139-151 (1983).
- 100. CARDELLO, A. V., R. A. SEGARS, J. J. SMITH, and R. ROSENCRANZ. Sensory and instrumental properties of flaked and formed beef: Effect of NaCl, tripolyphosphate, soy isolate and flake-size. Food Microstruct. (in press).
- 101. DEUTSCH, E., and J. E. WALKER. Increasing the lead-time in gastric cancer. Gastroenterology, 80(5) Part 2: 1135 (1981).
- 102. DEUTSCH, E., J. E. WALKER, J. NEPON, and M. MALLEK. Tumor and enzyme markers in the continuum of intestinal metaplasia and gastric carcinoma.

  Gastrointest. Endoscopy., 28(2): 153 (1982).

#### Technical Reports

- 103. EDELMAN, B Developmental differences in the conceptualization of obesity. J. Am. Diet. Assoc., 80(2): 122-127 (1982).
- 104. EDELMAN, B., and O. MALLER. Facts and fictions about infantile obesity. Int. J. Obes., 6(1): 69-81 (1982).
- 105. FIRSTENBERG-EDEN, R., D. B. ROWLEY, and G. E. SHATTUCK. Competitive growth of chicken skin microflora and Clostridium botulinum type E after an irradiation dose of 0.3 Mrad. J. Food Prot., 46(1): 12-15 (1983).
- 106. HIRSCH, E. Food availability as a determinant of sucrose-induced obesity and dietary selection. Physiol. Behav. (in press).
- 107. HIRSCH, E., C. DuBOSE, and H. L. JACOBS. Dietary balance and sucrose intake in rats. Physiol. Behav., 28(5): 819-828 (1982).
- 108. HIRSCH, E., L. GODKIN, and E. BALL. Sex differences in the regulation of energy balance. Physiol. Behav., 29(2): 253-262 (1982).
- 109. JOHNSON, E. A., E. T. REESE, and A. L. DEMAIN. Inhibition of <u>Clostridium</u> thermocellum cellulase by end products of cellulolysis. J. Appi.

  Biochem., 4: 64-71 (1982).
- 110. KAPLAN, D. L., J. H. CORNELL, and A. M. KAPLAN. Decomposition of nitroguanidine. Environ. Sci. Technol., 16(8): 488-492 (1982).
- 111. KAPLAN, D. L., and A. M. KAPLAN. Thermophilic biotransformation of 2, 4, 6-trinitrotoluene under simulated composting conditions. Applied and Environmental Microbiol., 44(3): 757-760 (1982).
- 112. \_\_\_\_\_. Mutagenicity of 2, 4, 6-trinitrotoluene-surfactant complexes.
  Bull. Environ. Contam. Toxicol., 28: 33-38 (1982).
- 113. KAPLAN, D. L., J. T. WALSH, and A. M. KAPLAN. Gas chromatographic analysis of glycols to determine biodegradability. Environ. Sci. Technol., 16(10): 723-725 (1982).
- 114. LEE, S. B., H. S. SHIN, D. D. Y. RYU, and M. MANDELS. Adsorption of cellulase on cellulose: effect of physicochemical properties of cellulose on adsorption and rate of hydrolysis. Biotechnol. & Bioeng., 24(10): 2137-2153 (1982).

# Journal Articles (cont'd)

- 115. PRATT, D. E., W. L. PORTER, C. DIPIETRO, and J. W. GIFFEE. Phenolic antioxidants of soy protein hydroxylates. J. Food Sci., 47(1): 24, 25, 35 (1982).
- 116. REMY, D. E. A versatile synthesis of tetrabenzporphyrins. Tetrahedron Lett., 24(14): 1451-1454 (1983).
- 117. ROWLEY, D. B., R. FIRSTENBERG-EDEN, E. POWERS, G. E. SHATTUCK, A. E. WASSERMAN, and E. WIERBICKI. Effect of irradiation on the inhibition of Clostridium botulinum toxic production and the microbial flora in bacon. J. Food Sci., 48(4): 1016-1021, 1030, 1983.
- 118. SALTER, C. A., C. SALTER, E. MENGDEN, and K. POWERS. Correlates of maternal attitudes toward preterm infants. Basic Appl. Soc. Psychol., 3(4): 283-290 (1982).
- 119. SANDICK, B., and A. V. CARDELLO. Taste of salts and acids on circumvallate papillae and anterior tongue. Chem. Senses (in press).
- 120. SANDICK, B., D. ENGELL, and O. MALLER. Perception of drinking water temperature after exercise. Physiol. & Behav. (in press).
- 121. SILVERMAN, G. J., D. T. MUNSEY, C. LEE, and E. EBERT. Interrelationship between water activity, temperature and 5.5% oxygen on growth and enterotoxin. A secretion by <u>Staplylococcus aureus</u> in precooked bacon. J. Food Sci. (in press).
- 122. WILEY, B. J., R. L. HEBERT, J. ARMSTRONG, and A. M. KAPLAN. An aerobiology of an environmental test chamber. Mycologia, 74(6): 886-893 (1982).

- 123. CALDARELLA, G. J., and J. F. ROACH. Laser hardened systems for personnel protection. Tri-service Laser Hardened Materials and Structures Group Meeting, CM/CCM Center, Adelphi, MD, March 22-24 1983.
- 124. CARDELLO, A. V., and F. M. SAWYER. An overview and prospects of the NMFS National Fisheries Products Nomenclature Project. Seminar, The National Marine Fisheries Service Southeast Regional Research Center, Charleston, SC, October 1982.
- 125. A comparison of the sensory characteristics of snapper and rockfish species. 28th Atlantic Fisheries Technological Conferences, Quebec, Canada, August 1983.

# Technical Papers (cont'd)

- 126. COHEN, S. H., R. A. SEGARS, A. CARDELLO, J. J. SMITH, and F. M. ROBBINS. Instrumental and sensory analysis of the action of catheptic enzymes on flaked and formed beef. Food Microstructure Symposium, Anaheim, CA, April 1982.
- 127. FEEHERRY, F. E. Influence of ions on the germination of Clostridium perfringens spores. Seminar, Northeastern University, Boston, MA, September 1982.
- 128. HIRSCH, E. Test plan for evaluating the effects of prolonged feeding Meal, Ready-to-Eat combat rations. Presented at NAS-NRC Committee Meeting on Military Nutrition Research. USARIEM, February 1983, and Research and Development Associates Meeting, Natick, MA, April 1983.
- 129. KAPSALIS, J. G., D. H. BALL, D. M. ALABRAN, and A. V. CARDELLO. Polyglycerols and polyglycerol esters as potential water activity reducing agents: chemistry and sensory analysis. Third International Symposium on the Properties of Water in Relation to Food Quality and Stability, Beaume, France, September 1983.
- 130. KUSNICKI, J., and A. V. CARDELLO. Psychophysics of single taste papillae. Sloan-Kettering Taste and Smell Conference, Washington, DC, June 1983.
- 131. LEVINSON, H. S., and F. E. FEEHERRY. Growth of germinated spores of Clostridium perfringens: recovery of phase-dark spores to refractility. American Society for Microbiology, 82nd Annual Meeting, Atlanta, GA, 1982.
- 132. PORTER, W. L. Uses of antioxidants in foods. Seminar, School of Public Health, Harvard University, Boston, MA, November 1982.
- 133. SAWYER, F. M., and A. V. CARDELLO. The NMFS nomenclature project: development of sensory methodology. Seminar, The National Marine Fisheries Service Northwest and Alaska Regional Research Center, Seattle, Washington, September 1932.
- 134. SILVERMAN, G. J. The need for microbiological quality assurance programs in institutional feeding systems. Seminar, Dept. Food Science and Technology, Nutrition and Dietetics, University of Rhode Island, Kingston, RI, 1983.
- 135. \_\_\_\_\_. Designing and implementing microbiological quality assurance programs for a hospital. Seminar, School of Public Health, Harvard University, Boston, MA, January 1983.

# Technical Papers (cont'd)

- 136. \_\_\_\_. Microbiological aspects of food service. Walter Reed Army Medical Center, Washington, DC, 1983.
- 137. WOODBURY, C., D. McCHESNEY, D. KOPECKO, B. DiCICCO, and E. TRAMONT. Iron utilization and penicillin sensitivity in clinical isolates of <u>Neisseria gonorrhoeae</u>. Meeting, the American Society for Microbiology, Atlanta, GA, March 1982.

### Other Publications

- 138. ALLEN, A. L. Enzymatic hydrolysis of cellulose to fermentable sugars.

  In Fuels and Organic Biomass. D. L. Wise (ed). Boca Raton, FL: CRC

  Press, 1983 Chapter 3.
- 139. ALLEN, A. L., and R. E. ANDREOTTI. Cellulase production in continuous and fed batch culture by <u>Trichoderma reesei MCG80</u>. <u>In Biotechnology & Bioengineering Symposium No. 12</u>. C. Scott (ed). New York: John Wiley and Sons, 1983, 451-459.
- 140. BAGALAWIS, L., C. DiPIETRO, and J. T. WALSH. Priority pollutants in RDX and HMX process waste waters. EPA Technical Report No. 78-D-072, US EPA, Cincinnati, OH, 1982.
- 141. COHEN, S. H. Scanning electron microscopy in the analysis of food microstructure: A review. <u>In Analysis of Foods and Beverages</u>. G. Charalambous (ed). Academic Press (in press).
- 142. JOHNSON, E. A., R. A. SEGARS, and J. G. KAPSALIS. Textural measurements as an evaluation of fish freshness. In Proceedings, 8th Annual Tropical and Subtropical Pisheries Technological Conference of the Americas. College Station TX: National Sea Grant College Program, Texas A&M University, 1983.
- 143. KAPSALIS, J. G. and O. MALLER. Protocol for sensory and instrumental testing of the edibility characteristics of fin fish. Final report for US Dept. of Commerce, NMFS, Purchase Order #NA82AAG0424, 1983.
- 144. MOSKOWITZ, H. E., J. G. KAPSALIS, and R. A. SEGARS. Psychorheology— Engineering the human texture perception. <u>In Food Process Engineering</u>, AIChE Symposium Series No. 218, Vol. 78, 1982, 163-172.

# Other Publications (cont'd)

- 145. SEGARS, R. A., and E. A. JOHNSON. Textural variation within cooked fish fillets. In Proceedings, 8th Annual Tropical and Subtropical Fisheries Technological Conference of the Americas. College Station TX: National Sea Grant College Program, Texas A&M University, 1983.
- 146. STAPLER, J. T. and F. H. BISSETT. Thermal characterization and stability studies of a polyester-based polyurethane laminate. <u>In Proceedings of the Seventh International Conference on Thermal Analysis</u>. Bernard Miller (ed). New York: John Wiley & Sons, 1982.
- 147. SILVERMAN, G. J. Sterilization by ionizing irradiation. <u>In</u>
  Disinfection, Sterilization and Preservation. S. S. Block, (ed).
  Philadelphia, PA: Lea and Febiger, 1983

This document reports research undertaken at the US Army Natick Research and Development Center and has been assigned No. NATICK/TR-84/001 in the series of reports approved for publication.

# INDEX TO AUTHORS (Entry Numbers)

Alabran, D. M. 129	Farinacci, A. L. 18
Allen, A. L. 95, 138, 139	Feeherry, F. E. 127, 131
Andreotti, R. L. 95, 139	Firstenberg-Eden, R. 105, 117
Armstrong, J. 122	Flynn, J. C. 12
Atwood, B. M. 26	Fossum, I. C. 26
Bagalawis, L. 140	Giffee, J. W. 115
Ball, D. H. 129	Godkin, L. 108
Ball, E. 108	Gold, A. A. 76
Baush, E. R. 21, 25	Goldgraben, J. R. 76
Bensel, C. K. 75	Goldsmith, C. T. 76
·	Gorfien, H. 36, 52
	Graves, R. D. 13
	Graves, N. D. 13
Black, W. L. 18	Walkinsta T C 21 26 25
Blodgett, C. R. 38, 39, 71	Halkiotis, J. G. 21, 24, 25
Bohm, H. A. 33	Hansen, J. V. E. 86, 88, 89
Brandler, P. 15	Harris, N. 53, 54
Brandon, D. L. 92	Hayes, J. S. 1, 2, 3, 4, 5
Buffone, R. J. 22	Hebert, R. L. 122
Burkholder, W. E. 31, 32	Hepfinger, L. B. 77, 180
	Herz, M. L. 12
Caldarella, G. J. 123	Hinrichs, R. N. 78
Cardello, A. V. 96, 97, 98, 99	Hirsch, E. 106, 107, 108, 128
100, 119, 124,	Hu, K. H. 58
125, 126, 129,	
130, 133	Imhoff, S. J. 13
Caron, P. L. 34, 35	
Cohen, S. H. 96, 126, 141	Jacobs, H. L. 107
Commerford, T. R. 80, 84, 85	Johnson, A. R. 20
Cornell, J. H. 110	Johnson, E. A. 109, 142, 145
Corse, J. W. 92	
	Kane, F. J. 82
Davis, B. A. 23	Kaplan, A. M. 110, 111, 112, 113,
Decareau, R. 40, 41, 42, 43	122
44, 45, 46, 47	Kaplan, D. L. 110, 111, 112, 113
Demain, A. L. 109	Kapsalis, J. G. 98, 129, 142, 143,
Deutsch, E. 101, 102	144
DiCicco, B. 137	Kim, H. 55
Digman, L. , 97	Kish, R. N. 75
DiPietro, C. 115, 140	Klicka, M. V. 23, 26, 27, 56, 57
DuBose, C. 107	Kopecko, D. 137
Dunne, C. P. 48, 49	Kubik, C. A. 26
bunner of the rep as	Kusnicki, J. 130
Eames, C. 50, 51	meaning, or edd
· · · · · · · · · · · · · · · · · · ·	Labanca, L. J. 12
	Laible, R. C. 90, 91
	Lallement, S. R. 78
Engell, D. 120	Lampi, R. A. 58
	rembt' v. v.

# INDEX TO AUTHORS

Lee, C. 121	Segars, R. A. 96, 100, 126, 142, 144, 145
Lee, S. B. 114	Shattuck, G. E. 105, 117
Levinson, H. S. 131	Shaw, C. P. 24, 28, 29, 64
Loveridge, V. 55, 59	65, 66, 67
	Shin; H. S. 114
McChesney, D. 137	Shin, I. S. 79
Maize, R. S., II 37, 60	Shults, G. W. 25, 30, 38, 39,
Mallek, M. 102	68, 73
Maller, O. 97, 98, 104, 120,	Sides, G. D. 12
143	Silverman, G. J. 93, 121, 134,
Mandels, M. 114	135, 136, 147
Mansur, R. 61	Simkin, J. 33
Martin, P. E. 79	Smith, J. J. 69, 74, 96, 99, 100,
Mengden, E. 118	126
Meyer, A. I. 27	Smith, L. W., JR. 31, 32, 33
Monastero, N. 76	Stapler, J. T. 94, 146
Moskowitz, H. R. 144	Sundell, J. A. 16
Munsey, D. T. 121	Sunderland, E. J. 30, 38, 39
70 70	Swantak, W. M. 21
Nelson, R. C. 78, 79	Stationity // The state of the
Nepom, J. 102	Taub, I. 55, 70
Nykvist, W. E. 19	Thomas, G. 86
Phillips, J. R. 32	Tramont, E. 137
Porter, W. L. 115, 132	Walker, J. E. 101, 102
Powers, E. 117	Walsh, J. T. 113, 140
Powers, K. 118  Pratt. D. E. 115	Wasserman, A. E. 117
	Watkins, R. B. 12
Prell, P. 98	White, R. M. 81
Ramsley, A. O. 80	White, W. 10, 11
Ramsley, A. O. 80 Reese, E. T. 109	Wierbicki, Z. 117
Reilly, R. 14	Wiley, B. J. 122
Reinhart, K. A. 86, 87, 88, 89	Wilusz, E. 90, 91
Remy, D. E. 83, 116	Woodbury, C. 137
Roach, J. F. 123	Wyant, K. W. 34, 35
Robbins, F. M. 126	
Rondiak, R. 6, 7, 8	Zelman, A. 71
Rosado, J. E. 29	
Rosencranz, R. 100	
Ross, E. W. 9	
Rowley, D. B. 105, 117	
Ryu, D. D. Y. 114	
.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Salant, A. S. 62	
Salter, C. 118	
Salter, C. A. 118	
Sandick, B. 119, 120	
Sawyer, F. M. 97, 98, 124, 125, 133	
Secrist. J. L. 63, 72, 96, 99	26